Mulla mulla: feathered delights

Massed displays of the bright pink flowers of the tall mulla mulla contrasting with the soft pastel greens of spinifex, red-brown soils and the clear blue sky provide an iconic image of the Pilbara.

by Robert Davis

Next to everlastings, the mulla mullas or lambs tails of the genus *Ptilotus* are one of the most readily recognised plants in Western Australia's arid regions. The Pilbara in particular is characterised by swaths of pink, white, green and yellow mulla mulla species covering thousands of hectares. While the genus is most prominent in the Pilbara, other mulla mulla species can be found almost throughout WA, from the heathlands of the south coast to the islands off the Kimberley.

Habit and habitat

The genus *Ptilotus* is large, with more than 100 species. Mulla mullas are almost entirely endemic to Australia, with just one species also occurring on the Indonesian islands of Flores and Timor. The greatest diversity is found in WA where 90 per cent of the species occur. A big proportion of these can be found in the Pilbara and arid zone where they have developed a range of growth forms to cope with the extreme conditions.

About half the species, including the most common and widespread, are annuals or ephemerals and so germinate, grow and flower quickly after desert rains. Others vary from perennial herbs, some with tubers or tuberous rootstocks, to woody shrubs. A good example of an ephemeral is the featherheads (*Ptilotus macrocephalus*). This is a common species found on flood plains and other run-on areas throughout dry regions of WA. The greenish flower heads are among the largest in the genus. In good seasons they cloak the landscape with dense, feathery carpets. Perfect opportunists, they set masses of seeds with a hard outer coat, enabling them to survive extreme conditions in the harsh years before the next rains or floods.

In contrast to the boom and bust cycle of the ephemerals, the cottonheads (*P. obovatus*) are tough, hardy survivors. This small shrub with stiff, tangled branches, grey leaves and pink, cottony flower heads is found throughout Australia from coastal dunes to rocky outcrops. In years

Above Goldfields mulla mulla (*Ptilotus helichrysoides*).
Photo – Robert Davis/DEC

of extreme drought, it can die back almost to ground level then re-sprout when conditions turn favourable.

Several species, such as the soft haired mulla mulla (*P. mollis*), have become scree specialists. These rocky slopes of loose stones on the edges of outcrops and breakaways look like moonscapes and provide some of the harshest environments in Australia. Often one or a few species of mulla mulla are the only plants to be found surviving in these environments. Similar to the cottonheads, the soft haired mulla mulla has the ability to sit dormant through many hard years and is often covered in a dense mat of white hairs for protection against the harsh light. Their soft, grey appearance provides a stark contrast to their rocky habitats.

Other mulla mullas occur in more forgiving environments. Narrowleaf mulla mulla (*P. drummondii*) is one of the most recognisable and is common in the Darling Range and from the south coast to as far north as the Kimberley.

Flowers

The name *Ptilotus* comes from the Greek word *Ptilon*, meaning winged or feathered. The feathery appearance of the flowers is caused by the abundant long, soft, often branched hairs covering and sometimes almost hiding the flower parts. The flowers lack normal petals and sepals, instead having two whorls of stiff, papery flower parts called tepals surrounding the stamens and ovary. Flowers are typically arranged in spike-like inflorescences, ranging in shape from spherical to cylindrical. Their colours are commonly pink, white, green and yellow, while the hairs often add a soft, greyish tone.

With a few exceptions, mulla mulla species fall into two distinct groups. The most readily recognised group has prominent hairs with distinct whorls of side-branches—each hair is like a tiny pine tree. The outer tepals are much

larger than the inner tepals and nearly always have serrated tips. They have a curved style which is fixed off-centre on the ovary and a combination of three fertile stamens and two coloured staminodes.

Flowers in the second group either lack hairs entirely or have unbranched hairs which are segmented in appearance. The style in these species is straight and centrally fixed to the ovary and all five stamens are fertile.

Uncommon and fascinating plants

There are 19 species of mulla mulla classed as a priority species, meaning they are under threat or poorly known, and one species is declared rare. The most threatened species is bunch leaved mulla mulla (*P. fasciculatus*), which is restricted to the margins of salt lakes in the wheatbelt and is susceptible to salinity and rising watertables.

Several species have not been seen for many years and may be extinct. However, this apparent rarity may be explained not by habitat destruction but taxonomic difficulties. Many mulla mullas inhabit remote areas of the State and are opportunists that may only be noticeable in the landscape for short periods of time. This means that they are infrequently collected.

With more botanical exploration and collecting efforts in remote areas, more of these striking and iconic flowers may well be rediscovered.

Top Royal mulla mulla (*Ptilotus rotundifolius*) and tall mulla mulla (*P. exaltatus*) near Tom Price.
Photo – Chris Garnett

Above left Cottonheads (*P. obovatus*).
Photo – Sallyanne Cousans

Above Soft haired mulla mulla (*P. mollis*).
Photo – Michi Maier

Below left Featherheads (*P. macrocephalus*).
Photo – Robert Davis/DEC

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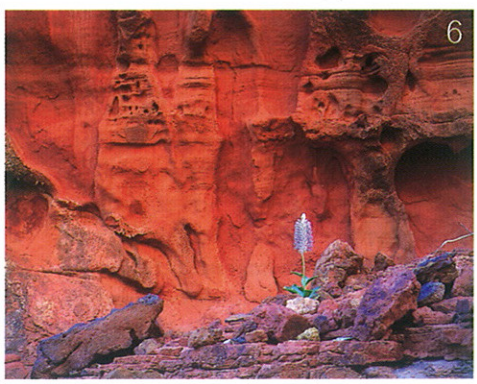
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